AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1.   (CURRENTLY AMENDED) An image combination method ~~of image-combining~~ ~~a high output image data and a low output image data~~, comprising the steps of:

image-combining high output and low output image data to form combined image data; and

multiplying ~~a~~the combined data of the high output image data and the low output image data by a total gain that depends on a scene.

2.   (ORIGINAL) An image combination method according to claim 1,

wherein the total gain is multiplied on the combined data of the high output image data and the low output image data in a range that the high output image data exceeds a certain value.

3.   (ORIGINAL) An image combination method according to claim 2,

wherein the range that the high output image data exceeds a certain value is range that the total gain p exceeds a value represented by [arbitrary numeral "α" - coefficient "k" × (high output image data after gamma-correction "high")/threshold "th")].

4.   (ORIGINAL) An image combination method according claim 3,

wherein the coefficient "k" = 0.2, the arbitrary numeral "α" = 1, the total gain p = "0.8" for high contrast scenes, the total gain "p" = 0.86 for cloudy or shady scenes, the total gain "p" = 0.9 for indoor scenes under fluorescent lamp illumination.

5.   (CURRENTLY AMENDED) An image pickup apparatus ~~for image-combining a~~ ~~high output image data and a low output image data~~, comprising:

image-combining means for image-combining a high output image data and a low output image data to form combined data; and

multiplying means for multiplying ~~a~~the combined data of the high output image data and the low output image data by a total gain that depends on a scene.

6.   (ORIGINAL) An image pickup apparatus according to claim 5,

wherein the multiplying means multiplies the combined data of the high output image data and the low output image data by the total gain in a range that the high output image data exceeds a certain value.

7.   (ORIGINAL) An image pickup apparatus according to claim 6,

wherein the range that the high output image data exceeds a certain value is range that the total gain p exceeds a value represented by [arbitrary numeral "α" - coefficient "k" $\times$ (high output image data after gamma-correction "high")/threshold "th")].

8.   (ORIGINAL) An image pickup apparatus according claim 7,

wherein the coefficient "k" = 0.2, the arbitrary numeral "α" = 1, the total gain p = "0.8" for high contrast scenes, the total gain "p" = 0.86 for cloudy or shady scenes, the total gain "p" = 0.9 for indoor scenes under fluorescent lamp illumination.

9.   (WITHDRAWN) An image pickup apparatus for combining image data of a high output image and image data of a low output image, both of which are picked up by an imaging device, to produce combined image data comprising:

a calculating unit for calculating a gain value for white balance adjustment from the image data of the high output image;

a gain correcting unit for performing not only first white balance adjustment for the image data of the high output image with the gain value calculated by the calculating unit but also second white balance adjustment for the image data of the low output image with the gain value.

10.   (WITHDRAWN) An image pickup apparatus for combining image data of a high output image and image data of a low output image, both of which are picked up by an imaging device, to produce combined image data comprising:

a calculating unit for calculating a gain value for white balance adjustment from the image data of the high output image;

a gain correcting unit for performing a white balance adjustment for the combined image data with the gain value calculated by the calculating unit.

11.   (WITHDRAWN) An image processing method of combining image data of a high output image and image data of a low output image, both of which are picked up by an imaging device, to produce combined image data comprising the step of:

calculating a gain value used for first white balance adjustment for the image data of the high output image and second white balance adjustment for the image data of the low output image from the image data of the high output image.

12.   (WITHDRAWN) An image processing method of combining image data of a high output image and image data of a low output image, both of which are picked up by an imaging device, to produce combined image data comprising the step of:

calculating a gain value used for a white balance adjustment for the combined image data from the image data of the high output image.

13.   (WITHDRAWN) An image pickup apparatus comprising:

an imaging device including first photoreceptors which receive light from a subject with a first sensitivity to output signals corresponding to the amount of the received light, and second photoreceptors which receive light from a subject with a second sensitivity lower than the first sensitivity to output signals corresponding to the amount of the received light;

received light calculating means for calculating the amount of light received by the imaging device;

judging means for judging whether or not the amount of the received light calculated by the received light calculating means exceeds a predetermined value; and

display means for displaying an image based on combination signals derived from combining signals output from the first photoreceptors and signals output from the second photoreceptors when the judging means judges that the amount of the received light exceeds the predetermined value, while displaying an image based on signals output

from the first photoreceptors when the judging means judges that the amount of the received light is equal or below the predetermined value.

14.   (WITHDRAWN) An image pickup apparatus according to claim 13,

wherein the received light calculating means calculates the amount of received light on the basis of an f number and shutter speed of the image pickup apparatus.

15.   (WITHDRAWN) An image pickup apparatus for additively combining a low sensitivity image signal and a high sensitivity image signal to generate an image with broad dynamic range, comprising:

first gamma correction means for performing gamma correction for the high sensitivity image signal with a first gamma character;

second gamma correction means for performing gamma correction for the low sensitivity image signal with a second gamma character which is different from the first gamma character; and

combining means for additively combining image signals output from the first gamma correction means and that image signals output from the second gamma correction means.

16.   (WITHDRAWN) An image pickup apparatus according to claim 15,

wherein the gamma value of the first gamma character is larger than the gamma value of the second gamma character.

17.   (WITHDRAWN) An image pickup apparatus according to claim 16,

wherein the gamma value of the first gamma character is 0.45, while the gamma value of the second gamma character is 0.18.

18.   (NEW) An image combination method according to claim 1,

wherein the total gain depends on a scene classification selected from a group of predetermined scene classifications.

19.   (NEW) An image combination method according to claim 18, wherein the scene classification is determined based on data detected by one or more sensors sensing the scene.

20.   (NEW) An image combination method according to claim 18, wherein the scene classification is determined based on a selection of a scene classification by a user.

21.   (NEW) An image combination method according to claim 1,

wherein the step of image-combining the high output image data and the low output image data is performed by partially replacing a portion of one of the high output image data and the low output image data with a portion of the other of the high output image data and the low output image data.

22.   (NEW) An image combination method according to claim 1,

wherein the step of image-combining the high output image data and the low output image data is performed by a logarithmic addition method.

23.   (NEW) An image pickup apparatus according to claim 5,

wherein the total gain depends on a scene classification selected from a group of predetermined scene classifications.

24.   (NEW) An image pickup apparatus according to claim 23,

wherein the scene classification is determined based on data detected by one or more sensors sensing the scene.

25.   (NEW) An image combination method according to claim 23,

wherein the scene classification is determined based on a selection of a scene classification by a user.

26.   (NEW) An image combination method according to claim 5,

        wherein the image-combining means image-combines the high output image data
and the low output image data by partially replacing a portion of one of the high output
image data and the low output image data with a portion of the other of the high output
image data and the low output image data.

27.   (NEW) An image combination method according to claim 5,

        wherein the image-combining means image-combines the high output image data
and the low output image data by a logarithmic addition method.